

SCIENTIFIC NOTE

Odonaspis saccharicaulis* (Zehntner) (Hemiptera: Coccoidea: Diaspididae): Erroneous Records and First Field Collections in Hawaii*Janis N. Matsunaga**

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Abstract. In 2012, two separate collections of sugar cane–infesting diaspidids on the islands of Oahu and Maui were identified as *Odonaspis saccharicaulis*. A subsequent status check revealed that establishment of this particular species in Hawaii was questionable, prompting a further investigation of this and other records of *Odonaspis* species in Hawaii.

Key words: Hawaii, new state record, *Odonaspis*, Diaspididae

The worldwide distribution of *Odonaspis saccharicaulis* as listed by Ben-Dov (2012) consists of Australia, Africa, South East Asia, Central and South America, the South Pacific, and the U.S., including the Hawaiian Islands. Despite references by Cockerell (1899) and Ben-Dov (1988), Nishida (2002) lists the establishment of *O. saccharicaulis* in Hawaii as “dubious.” The conflicting status records of this species required a comprehensive literature review and reexamination of voucher specimens.

Cockerell (1897) changed the combination of *Aspidiotus secretus* Cockerell 1896 to *Odonaspis secretus*, and in 1899 he ranked *A. (O.) saccharicaulis* (Zehntner) as a variety of *O. secretus*. Cockerell (1899) also mentions a new locality collection of *Aspidiotus (O.) secretus* in Honolulu, Hawaii, on bamboo in 1899, but not of the particular *saccharicaulis* race. In addition, Nishida (2002) does not include *O. secretus* as having confirmed establishment in Hawaii. Though these specimens could not be located, a long series of

collections from bamboo in Honolulu, beginning in 1899 were reviewed in both the Hawaii Department of Agriculture (HDOA) entomological reference collection and the USDA-ARS-Systematic Entomology Laboratory (SEL) reference collection (D.R. Miller, pers. com.). All specimens reviewed from the turn of the century were misidentified as *O. secreta/secretus* and later correctly determined to be *O. greeni* Cockerell. Previous records of *O. secreta* being established in Hawaii by MacGillivray (1921), Fullaway (1932), Kuwana (1933), Borchsenius (1937, in Russian, cited in Ben-Dov 2013), and Ferris (1938) were most likely based on these misidentifications. Ferris in Zimmerman (1948) states that only *O. greeni* occurs in the Hawaiian Islands, and mentions that the two species have been confused here. No authentic material of *O. secreta* from Hawaii could be located.

Ben-Dov (1988) includes Hawaii in the recorded distribution of *O. saccharicaulis*, and lists voucher specimens as collected from “Koru Isl., Hawaii” by J.W. Beards-

ley, June 1953. However, “Koru Isl.” is not an island or area in the State of Hawaii. With the assistance of Douglass R. Miller, collection data from (1966) was compared with Ben-Dov (1988), which revealed that Beardsley collected specimens of *O. saccharicaulis* from “Palau: Koror” in June and July 1953. Beardsley’s *O. saccharicaulis* material and collection dates (June 1953) correspond in both publications, suggesting that Ben-Dov may have read Beardsley’s label incorrectly or that it was illegible, leading him to assume that Koror/”Koru” must be an island in Hawaii, as this was the location of Beardsley’s work.

In consideration of this error, the 2012 field collections of *O. saccharicaulis* represent new state records for Hawaii, and any previous Hawaii distribution record of *O. saccharicaulis* in reference to Ben-Dov (1988) is invalid. In addition, at the time of publication, the status of *O. secreta* remains as not established in Hawaii.

Material examined: **OAHU:** Honolulu, Pawaa, 15.iii.2012, ex. *Saccharum officinarum*, coll: M. Ramadan (Deposited at SEL and HDOA). **MAUI:** Kahului, Maui Nui Botanical Gardens, 13.iv.2012, ex. *Saccharum officinarum*, coll: M. Fukada (Deposited at HDOA).

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